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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,331	07/22/2003	Shinichi Nishikawa	15162/06050	6976
24367	7590	10/31/2006	EXAMINER	
SIDLEY AUSTIN LLP 717 NORTH HARWOOD SUITE 3400 DALLAS, TX 75201			DEGHAN, QUEENIE S	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/624,331

Applicant(s)

NISHIKAWA, SHINICHI

Examiner

Queenie Dehghan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marechal et al. (4,734,118) in view of Nishikawa (2002/0053223). In figure 2, Marechal et al. disclose a method for shaping an optical element comprising preparing a lower mold (20) opposed to an upper mold (21) having optical molding surfaces (22), where the lower mold is combined with an outer shape restricting surface (23) (col. 6 lines 18-21), forming a positioning reference surface on the rim of the optical element by heating the outer shape restricting surface combined with the lower mold surface with an induction heating coil (25), pressing the glass while still at a temperature at which it is deformable by bringing together the upper and lower molding surfaces (col. 3 lines 61-68 to col. 4 lines 1-4), and taking out the molded optical element (col. 4 lines 5-7). Marechal et al. further disclose using a temperature for the mold at which glass is softened, which would be higher than $T_g - 100^\circ\text{C}$ in the reference formation and pressing step (col. 2 lines 62-65). Marechal et al. also disclose a similar mold structure comprising of a lower mold (1) opposed to an upper mold (2) having optical molding

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surfaces (4), where the lower mold is combined with an outer shaped restricting surface (3) in figure 1. Regarding claim 4, Marechal et al. disclose an example where the molds were prepared, the positioning reference surface is formed and the glass is pressed while at a constant temperature (of 331°C) (col. 8 lines 4-8). Regarding claim 5, Marechal et al. disclose a positioning reference surface that is non-circular in its cross-sectional view in figure 1. However, Marechal et al. do not disclose the dropping of glass on the lower mold. Nishikawa teach of a process where molten glass drop amount is adjusted by colliding the drop with a micro through hole disposed on the dropping path and pushing out a micro drop out of the hole and dropping onto a lower molding surface (abstract, figure 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the micro drops of Nishikawa in the method of Marechal et al. in order to control the amount of glass to be added to the mold.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. (JP abstract 60-171231) in view of Parsons et al. (3,900,328), Nishikawa (2002/0053223), and Marechal et al. (4,734,118). Shimizu et al. disclose a process for manufacturing a molded optical lens comprising of preparing a bottom die (1) opposed to a top die (2) with molding surfaces (11 and 12 respectively) and outer shape restricting surfaces (3R and 3L), forming a positioning reference surface on the rim of the lens, and pressing the glass by bringing the top and bottom dies together (abstract, drawings 1 & 2). Shimizu et al. do not disclose the heating elements of the molding operation or a removal step. Parsons et al. teach of a method for molding lenses by

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applying heat to the molds and removing the molded lens (col. 6 lines 9-13, 30-35), wherein the temperature of the molds are above $T_g - 100^\circ\text{C}$ (col. 7 lines 7-9, 19-21).

Nishikawa teach of dropping glass onto a lower mold in figure 6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the heating of the molds and removal of the optical element steps of Parsons et al. and the dropping of the glass step of Nishikawa in the method of Shimizu et al. in order ensure that a controlled amount of glass is used and that it remains in a softened state for molding and do not experience a thermal shock when introduced to the molds, as taught by Parsons et al.

4. Regarding claims 2 and 3, Shimizu et al. disclose a molding assembly where the lower mold has a restricting surface forming a second positioning reference surface outside an effective diameter surface in drawings 1-6, wherein the surface is inherently formed simultaneously with the forming of the positioning reference surface on the rim of the optical element as the molds are brought together as mentioned in claim 1 above.

5. Regarding claim 4, Shimizu et al. do not disclose a target temperature. However, Parsons et al. teach of a method for molds are prepared, softened glass is placed in the molds and pressed while the molds have be preheated to one set temperature (col. 6 lines 64-68 to col. 7 lines 1-4). Furthermore, Marechal et al. disclose an example where the molds were prepared, the positioning reference surface is formed and the glass is pressed while at a constant temperature (of 331°C) (col. 8 lines 4-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to

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utilize a constant temperature in the process of Shimizu et al. in order to ensure the proper amount of heat was applied while molding the lens.

6. Regarding claim 5, Shimizu et al. disclose a position reference surface that is non-circular in the cross sectional view in drawing 5 and 6.

7. Regarding claim 6, Shimizu et al. do not disclose a step of forming minute drops of glass. Nishikawa teach of a process where molten glass drop amount is adjusted by colliding the drop with a micro through hole disposed on the dropping path and pushing out a micro drop out of the hole and dropping onto a lower molding surface (abstract, figure 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the micro drops of Nishikawa in the method of Shimizu et al. and Parsons et al. in order to control the amount of glass to be added to the mold.

Response to Arguments

8. Applicant's arguments filed August 22, 2006 have been fully considered but they are not persuasive. Marechal discloses a mold that becomes enclosed after glass is placed on the molding surfaces. Placing the glass on the molding surface would require the mold to be open. Furthermore, Marechal discloses the need to closely control the weight of the glass body to be molded and Nishikawa presents a method for precise and control delivery of a specific volume of glass to a mold surface.

9. Similarly, Shimizo discloses a mold that opens for the insertion of the glass body before enclosing the mold, similar to that disclose by the applicant. Furthermore, the

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prior art of Parsons et al. teach the heating of a mold to a temperature range of 530°C-590°C, and also a softening temperature of the glass of around 600-700°C, which places the mold temperature substantially in the range of higher than 100°C less than the glass transition temperature. Parsons et al. also teach the inherent step of removing a glass body from a mold after pressing. The mold of Parsons et al. appears to be an enclosed mold when pressed together, indicating that it is possible to remove a lens with a cane from an enclosed mold.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Queenie Dehghan whose telephone number is

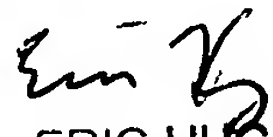
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(571)272-8209. The examiner can normally be reached on Monday through Friday
8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Q Dehghan


ERIC HUG
PRIMARY EXAMINER